

REMARKS

In the Office Action, the Examiner rejected Claims 1, 2, 5-7, 10-12, 15 and 16 under 35 U.S.C. 102 as being fully anticipated by U.S. Patent 6,687,873 (Ballantyne, et al.); and rejected Claims 3, 4, 8, 9, 13 and 14 under 35 U.S.C. 103 as being unpatentable over Ballantyne, et al. in view of U.S. Patent 6,292,932 (Baisley, et al.).

Independent Claims 1, 6 and 11 are herein being amended to better define the subject matters of these claims. Claims 17-19, which are dependent from Claim 1, are being added to describe preferred features of the invention; and Claims 2, 7, 12 and 16 are being cancelled to reduce the number of issues in this application.

For the reasons discussed below, Claims 1, 3-6, 8-11, 13-15 and 17-19 patentably distinguish over the prior art and are allowable. The Examiner is thus asked to enter this Amendment, to reconsider and to withdraw the rejections of Claims 1, 3-6, 8-11 and 13-15, and to allow these claims and new Claims 17-19.

There is a very important difference between the present invention and Ballantyne, et al. The present invention is used to convert a complete legacy file to a specified markup language, while Ballantyne, et al. is directed to outputting legacy data in an XML format.

This general difference is reflected in a number of more specific differences between Ballantyne, et al. and the present invention. One such difference is that the present invention employs a procedure to ensure that all the text of the legacy file is retrieved and converted. Ballantyne, et al. does not provide any such assurance, but simply formats a stream of data given to write engine 20. Ballantyne, et al will format that stream, but Ballantyne, et al. does not proactively ensure that a complete legacy text file is converted.

To elaborate, this invention provides methods and systems for converting text legacy files to a specified format, such as an XML format. While there is an important need to convert legacy text files to an XML format, there currently is no generalized, widely applicable and automated procedure to do this.

The instant invention provides this by providing a parser that can be used on its own or as part of a larger system to convert large numbers of legacy files quickly to an XML formal. This, in turn, is done by means of a unique map file having a given set of tags and attributes, by forming a tree structure from this map file, and then using that tree structure to form an XML file from the legacy file.

More specifically, to convert a flat file having legacy data, a map file is defined having tags and attributes. Also, each column heading of the flat file is included in the reference for one of these attributes. A tree structure, having a plurality of nodes, is formed from the map file. All of the nodes of the tree structure are then traversed, node-by-node; and at each node, an attribute of the node is entered into the XML file. Also, each time a reference of one of the attributes matches a column heading of the legacy file, data from that column are entered into the XML file. In this way, all of the legacy data is entered into the XML file, yet the format of that file is controlled in a desired manner through use of the attributes of the map file.

Ballantyne, et al, in a general sense, relates to reporting XML data from a legacy computer system. Ballantyne, et al, though, does this in a way that is completely different from the present invention. With the Ballantyne, et al. procedure, the legacy computer application is modified so that this application outputs data in the desired way. This feature of the Ballantyne, et al. process is described in the summary of the Invention given in Ballantyne, et al. In particular, in column 2, lines 62-67, Ballantyne, et al. states that the

invention "provides XML output by modifying the underling legacy computer system program applications to report data in XML format instead of transforming the output from the legacy computer system after the data is reported in the format of the legacy computer system" (emphasis added). Thus, the approach taken by Ballantyne, et al is the opposite of the approach taken by the present invention. Consequently, Ballantyne, et al. actually teaches away from the instant invention.

It is noted that in Ballantyne, et al, Figure 4 shows text that is in a flat file, and Figure 5 shows this text in an XML format. Ballantyne, et al, however, does not convert the text of Figure 4 to the text of Figure 5. Instead, as explained in Ballantyne, et al. from column 8, line 46 to column 9, line 64, Figures 4 and 5 represent two different printed outputs of the same basic data. Figure 4 shows a printed output from a COBOL program, and Figure 5 shows a printed output from the modified program shown in Figure 5A. Ballantyne, et al. does not convert the text of Figure 4 to the text of Figure 5, but rather converts the legacy application so that this legacy application outputs data in the format of Figure 5.

In addition, the present invention employs a proactive procedure to ensure that all the text from the legacy file is converted. This is done by identifying the column headings of the legacy file, one heading at a time, and each time one column heading is identified, retrieving all the text from that column and entering all of that retrieved text into the new, markup language file.

Independent Claims 1, 6 and 11 are being amended to more positively describe the above-discussed aspect of the invention, and the map file of the present invention is used to accomplish this. Specifically, each of Claims 1, 6 and 11, as presented herewith, describes the feature that the map file is used to map text from the legacy file into the defined format in

the markup language file, including the step of traversing the legacy file, column by column, and for each of those columns, mapping all of the text in the columns to the markup language file.

Further, as amended herein, each of Claims 1, 6 and 11 describe the feature that this mapping is done by traversing the nodes of the formed tree structure, node-by-node, and when one of the references in the attributes of one of the nodes matches the heading of one of the columns of the legacy file, retrieving all of the text from said one of the columns of the legacy file, and entering that retrieved all text into said markup language file. This mapping also includes traversing all of said nodes of said tree to ensure that references are found matching all of the column headings of the legacy file, and thereby to ensure that all of the text from the legacy file is retrieved therefrom and entered into the markup language file.

Ballantyne, et al, as mentioned above, is directed to converting a stream of data provided to write engine 20. There is thus no reason to modify the procedure described in Ballantyne, et al. to ensure that all the data of a particular legacy file is retrieved.

The other references of record have been reviewed, and these other references, whether considered individually or in combination, also do not disclose or suggest the above-discussed features of the present invention.

In particular, Baisley, et al. discloses a procedure for converting one language model to another language model. This reference was cited primarily for its disclosure of a default naming procedure, and Baisley, et al. does not disclose or teach, among other features, the map file of, or the way this map file is used in, the present invention to map all of the text from the legacy file to the new markup language file.

In view of the above-discussed differences between Claims 1, 6 and 11 and the prior art, and because of the advantages associated with those differences, Claims 1, 6 and 11 patentably distinguish over the prior art and are allowable. Claims 3-5 and 17-19 are dependent from and are allowable with Claim 1. Also, Claims 8-10 are dependent from, and are allowable with, Claim 6; and Claims 13-15 are dependent from Claim 11 and are allowable therewith.

For the reasons set forth above, the Examiner is asked to reconsider and to withdraw the rejection of Claims 1, 5, 6, 10 and 11 under 35 U.S.C. 102, and the rejection of Claims 3, 4, 8, 9, 13 and 14 under 35 U.S.C. 103, and to allow Claims 1, 3-6, 8-11, 13-15, and 17-19. If the Examiner believes that a telephone conference with Applicants' Attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully submitted,

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